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# Comments on NPRM FCC 96-119

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## Amendment of Rules for Broadband PCS Auction of D, E, and F Blocks

*Submitted by*

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# Comments on NPRM FCC 96-119

## Amendment of Rules for Broadband PCS Auction of D, E, and F Blocks

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### Introduction

I have been asked by DCR Communications to comment on the proposed rule changes for the broadband PCS auction of the D, E, and F frequency blocks. I am commenting based on my role as auction expert. My comments are based on a careful reading of the notice of proposed rule making (FCC 96-119) and my extensive experience with all of the FCC spectrum auctions. My comments focus on aspects of the rules that influence auction efficiency and auction revenues.

In amending the rules for the D, E, and F block auction, the FCC should make full use of its experience in the earlier spectrum auctions. Overall, these auctions have been a phenomenal success. Nonetheless, it is clear from the earlier auctions that auction outcomes can be substantially effected by such things as bidding credits, installment payments, and whether blocks are auctioned simultaneously or in sequence. Thus, the FCC should carefully study these issues in designing the final rules for the D, E, and F block auction.

Based on my own analysis of the issues, I conclude that:

- The D, E, and F blocks should be auctioned simultaneously.
- Installment payments for small businesses should be extended to the D and E blocks, although bidding credits should be limited to the F block.
- The installment payments should be the same as in the C-block auction.

In what follows, I describe my reasons for drawing these conclusions. I also address a number of related matters.

### Treatment of Designated Entities

#### Meeting the Adarand Standard

As in the C-block auction, it is extremely unlikely that race and gender based preferences could survive legal challenge. Hence, they should be replaced by preferences for small businesses only. The rules should mirror the rules for the C-block, unless there is substantial evidence that a change is required. Minimizing the differences in the designated entity rules for the C and F blocks will simplify enforcement and assure that C block bidders can participate fully in the F block auction. Since C-block winners are apt to have high valuations in the F block, there participation should be encouraged.

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Installment payments and bidding credits should be the same as in the C-block auction. Any change complicates subsequent regulation and enforcement. For example, if the rules are the same for C and F blocks, then the transfer of licenses among C and F block bidders is facilitated.

## **Definitions**

The definition of a *small business* should be the same as in the C-block auction. Of course, the value of licenses won in the C-block auction should in no way count in either the gross revenue calculation or the net worth calculation. The value of these licenses is fully offset by the liability of payment to the U.S. Treasury.

The FCC should update its definition of *rural telephone company* to that in the Telecommunications Act of 1996. This update will simplify subsequent regulation and enforcement by using the same definition for this and all future proceedings.

## **Extending Small Business Provisions to the D and E Blocks**

The FCC should extend installment payments for small businesses to the D and E blocks. Such a change would (1) enhance auction competition, (2) increase auction revenues, and (3) encourage diverse ownership, all of which are primary goals identified in Section 309(j) of the Communications Act.

- *Enhances Auction Competition.* In their article, "Pursuing Deficit Reduction Through Diversity: A Case Study of How Affirmative Action at the FCC Increased Auction Competition," (*Stanford Law Review*, April 1996), Ian Ayres and Peter Cramton demonstrate that auction competition was substantially increased in the regional narrowband PCS auction, because of the FCC decision to extend installment payments to all blocks, not just the blocks on which designated entities received bidding credits. The primary effects of this increase in competition were a substantial increase in revenues and in the diversity of ownership. Ayres and Cramton estimate that auction revenues increased by about \$45 million or 22% in the regional auction, because of the crossover bidding by designated bidders into blocks for which the designated bidders received no bidding credit. This crossover bidding was made possible, because these designated bidders were eligible for installment payments on all licenses.
- *Increases Auction Revenues.* There is every reason to believe that extending the installment payments to the D and E blocks would have similar effects in the final broadband auction. Competition was weak in many markets in the AB-block auction. Without bidding credits or installment payments, only big bidders could successfully compete for large licenses in this auction. Moreover, because of alliances and cellular ownership restrictions, only a few large bidders were eligible to bid in many of the largest markets. This lack of competition in the MTA auction resulted in low prices in many important markets. (See Peter Cramton, "The PCS Spectrum Auctions: An Early Assessment," University of Maryland, 5 December 1995.) In contrast, the bidding credits and installment payments in the C-block auction have created an auction of intense competition in every market. Net prices in the C-block auction are currently \$39.00 per pop in contrast to the final average price of \$15.54 per pop in the AB-block auction. Even when we discount the C-block figure to correct for the higher default risk, it is clear that the U.S. Treasury will collect substantially more from the C-block auction (on a per pop basis) than was collected in the AB-block auction. There is every reason to believe that with installment payments on the D and E blocks, small businesses would be able to compete

with the large bidders for these licenses. This crossover bidding may have a dramatic effect on auction revenues in the DEF block auction.

- **Encourages Diverse Ownership.** In addition to the higher revenue, extending the installment payments to D and E blocks is likely to increase license ownership among small businesses. Moreover, since many of the successful firms in the C-block auction were woman or minority controlled firms, it is likely that such a change would increase participation by woman and minority controlled firms. Many of the C-block bidders have significant holes in their desired footprints. These bidders will seek to fill these holes by acquiring the DEF licenses in particular markets. Without installment payments in the D and E blocks, these small businesses will not have a chance of acquiring the needed licenses. The objective of diverse ownership can be achieved by simply extending the installment payments to the D and E blocks.

### **Adjusting for Lower Values of 10 MHz Licenses**

No adjustment in bidding credits or installment payments should be made, because of the smaller size of the 10 MHz licenses. The smaller size of the licenses does not change the fundamental economics. The bidding credits and installment payments are needed to offset the disadvantages small businesses face in competing with the large incumbent firms. The fact that the spectrum is broken up into smaller slices does not reduce these disadvantages.

### **Rules Regarding the Holding of Licenses**

There is no reason to forbid the transfer of licenses among small businesses during the first three years. A transfer among qualifying small businesses does not involve any windfall gains, since every small business is able to compete at the auction. Moreover, allowing such transfers does not damage the goal of diversity, since the license is still held by a qualifying small business after the transfer.

Forbidding transfers among small businesses is inefficient. Transfers are required, because of changes that were not anticipated at the time of the auction. For example, some small businesses may go bankrupt because they are unable to acquire needed capital or expertise to provide an efficient service. Other small businesses will prosper. Economic efficiency demands that licenses held by failing small businesses should be quickly transferred to the successful small businesses. This gets the licenses in the hands of those best able to use them. The three year restriction on sale is grossly inefficient and should be dropped. The current restriction will lead to a high percentage of defaults in the C and DEF auctions. Failing small firms will have no option, but to default.

Any C or DEF-block bidder that qualified as a small business in the C or DEF-block auctions should be able to purchase licenses from C or F block winners at any time. Non-bidders should also be able to purchase licenses from C or F-block winners provided they qualify as small businesses.

Transfers to firms that are not small businesses should be permitted after five years. However, payments for "unjust enrichment" should be reduced to reflect the effective bidding credit relative to the MTA auction. Hence, in the C-block auction the effective bidding credit is 0%, not 25%, because gross prices in the C-block auction are more than 25% higher than in the MTA auction. The only source of "unjust enrichment" is the installment payments, but since any transfer to a non-small business would require

payment of the full bid, the gain due to the installment payment vanishes at the time of sale.

## Auction Schedule

### The D, E, and F Blocks Should be Combined Into One Auction

It is critical that the FCC combine the D, E, and F blocks into a single auction. I believe that this has been long understood by all auction experts; however, the FCC was concerned with the complexity of a single auction for all three blocks, which would involve nearly 1500 licenses and over 100 bidders. Indeed, until recently the FCC did not have the capability of conducting such an auction. Fortunately, the FCC auction software has made substantial progress in recent months. Based on the successful experience with the MDS, SMR, and C-block auctions, it is clear that from a technical standpoint the FCC can handle an auction of this scale and complexity. For example, on 15 April 1996, the FCC moved the SMR auction of 1020 licenses to nine rounds per day. Not only can the FCC conduct an auction of this size, but it can do so at great speed.

There are several reasons for holding a single DEF auction. A single auction:

- *Promotes building efficient aggregations.* Bidders are not forced to guess what prices are likely to be in the later auctions, when deciding to bid today.
- *Allows arbitrage across blocks so that bids reflect market prices.* Each of the prior auctions has made clear that similar items will sell for similar prices if they are sold simultaneously. In contrast, with sequential auctions, this arbitrage is far from perfect and similar items can sell for substantially different prices. This divergence in prices is evidence of inefficiency.
- *Increases auction revenue.* Auction competition is enhanced to the extent bidders are able to form efficient aggregations and take advantage of arbitrage opportunities. This increased competition is likely to lead to higher revenues. Auctioning the three blocks simultaneously is especially important for bidders (such as C-block winners) attempting to acquire the DEF blocks within the same market as a substitute for the C-block license. Having two auctions (DE then F) would expose these bidders to substantial aggregation risk. As a result participation is discouraged.
- *Promotes diverse ownership.* Combining D, E, and F into a single auction, clearly enhances the ability for bidders to substitute among blocks or to aggregate blocks. Given that the F block is set aside to small businesses, the combined auction will enhance the ability of small businesses to compete on the D and E blocks. As a result, more small businesses are likely to win licenses, and since many small businesses are controlled by women or minorities, this will promote diverse ownership.

Upfront payments in dollars per MHz-pop should be the same for all blocks and bidder types. This simplifies cross-over bidding by small businesses on D and E blocks. Moreover, since the upfront payment is intended to protect the FCC in the event of default and since small businesses are more apt to default, there does not seem to be a compelling case for having a smaller upfront payment for small businesses.

Upfront payments should be set at a level that is roughly equal to about 5% of the expected final prices. In light of the C-block prices, it seems that \$.02 per MHz-pop is

perhaps too low. An upfront payment of \$.03 or \$.04 per MHz-pop is probably more reasonable.

### **Auction procedures should be enhanced to reduce the possibility of mistaken bids**

The FCC bid submission software should warn the bidder whenever a bid is entered that exceeds the minimum bid by more than 10 bid increments. In addition, the FCC bid submission software should not allow any bid that exceeds the minimum bid by more than 50 bid increments. These modifications will be dramatically lower the chance of a mistake bid. Even so mistakes may still happen. Since the FCC cannot distinguish honest mistakes from strategic "mistakes," the FCC must impose a penalty for mistaken bids. I describe an appropriate penalty rule for mistaken bids below:

*Proposed Penalty Rule for Mistaken Bids.* A bidder may withdraw a mistaken bid by contacting the FCC prior to the opening of the next bidding round. Regardless of the amount of the withdrawn bid, the bid is treated as if it were equal to the prior high bid plus two bid increments. Hence, if the minimum bid increment is currently 5%, then the withdrawn bid is treated as a bid equal to 10% more than the current high bid in the round in which it was placed. The FCC is listed as the high bidder and the minimum bid is equal to the second-highest bid on that license. The bidder must pay a mandatory withdrawal penalty equal to the greater of (1) two minimum bid increments at the time the bid was placed or (2) the difference between the prior high bid plus two bid increments and the final sale price. The difference in (2) is calculated on a net bid minus net bid basis (net of any bidding credits). Neither bidding credits nor installment payments apply to the mandatory withdrawal penalties. The mandatory penalty is due in full within 10 business days from the date of FCC notification of the penalty. Failure to pay the penalty within the 10 business days results in the disqualification of the bidder in the current auction. The penalty is then taken from the bidder's upfront payment and the bidder's eligibility is set to zero. In stage 1, a bidder can withdraw a mistaken bid after the opening of the next bidding round. If this happens, the penalty is increased by one minimum bid increment for every additional round of delay. Delayed withdraw of a mistaken bid is not permitted after the opening of the third round of bidding after the mistaken bid. Hence, the minimum penalty is two bid increments if the mistake is reported before the beginning of the next round; three bid increments if reported before the second round after the bid was placed; and four bid increments if reported before the third round after the bid was placed.

### **Conclusion**

The FCC must make a number of important decisions with respect to the auctioning of the D, E, and F blocks. I urge the FCC to make these decisions so as to encourage auction competition, enhance auction revenues, and promote diverse ownership. It is my judgment that to achieve these objectives the FCC should:

- Auction the D, E, and F blocks simultaneously.
- Offer installment payments for small businesses on the D and E blocks, which are the same as in the C-block auction.
- Base the other rules on the phenomenally successful C-block auction.